

# STS-102 Through STS-105 ISS 5A.1 Through ISS 7A.1



Robert R. Marriott (281) 483-6879 May 2001





### Introduction

- Although Every Effort Is Made to Keep the Following Presentation up to Date and Accurate, the Information Must Be Considered Preliminary and Subject to Change at Any Time
- The Payloads and Schedules Reflect the Current Planning Assessment and Should Not Be the Considered Official Space Shuttle Program Manifest
- Official Program Launch Schedule Is Available at: <a href="http://sspweb.jsc.nasa.gov/ntdata/ssp/webdata/mchome/sspindex.htm">http://sspweb.jsc.nasa.gov/ntdata/ssp/webdata/mchome/sspindex.htm</a>
- Official Shuttle launch information is available at: <a href="http://www-pao.ksc.nasa.gov/kscpao/schedule/schedule.htm">http://www-pao.ksc.nasa.gov/kscpao/schedule/schedule.htm</a>
- Space Station Assembly sequences is available at: http://spaceflight.nasa.gov/station/assembly/index.html
  - Preliminary (Un-approved) Assembly Revision, G
  - Proposed Assembly Sequence Changes Through UF6 (January 2006)



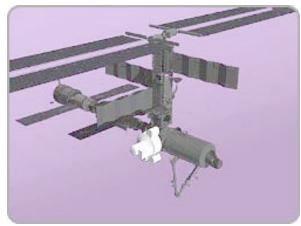
### **Launch Schedule**

• SSP Schedules Home Page – Click Launch Schedules

http://sspweb.jsc.nasa.gov/ntdata/ssp/webdata/mchome/sspindex.htm



# STS-104 Atlantis (OV-104) ISS 7A



#### **CREW**

Cdr -- Steven Lindsey

Plt -- Charles Hobaugh

MS -- James F. Reilly, II (Ph.D.)

MS -- Michael Gernhardt

MS -- Janet Kavandi

#### Flight Profile

Launch Date: June 14, 2001 Launch Time: 4:15 p.m. EDT

Window 0 Hour 10 Minutes

**Orbit 51.6 Degrees** @ **170 NM** 

KSC Landing June 25, 2001 @ 12:30 ET

#### **Ground Controllers**

Ascent/Entry Bill Foster
SSP Lead Mike Marsh
SSP Alternate Johnnie Brothers
ISS 7A Lead Rick Hashop



#### Flight Directors

Lead P. Hill

#### Mission Objectives - ISS 7A

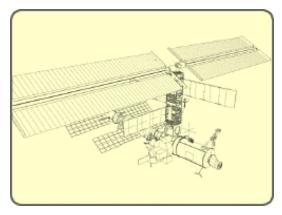
Joint Airlock and High Pressure Gas Assembly

Airlock Provides Station-based Extravehicular Activity (EVA) Spacewalking Capability for Both US and Russian spacesuits.

High Pressure Gas Assembly Supports Spacewalk Operations and Augments the Service Module Gas Resupply System.



# STS-105 Discovery (OV-103) ISS 7A.1



#### **CREW**

Cdr -- Scott Horowitz

Plt -- Rick Sturckow

MS -- Daniel Barry

MS -- Patrick Forrester

Expedition-3

(up): Mikhail Turin

Frank Culbertson Vladimir Dezhurov

#### Flight Profile

Launch Date July 12, 2001 Launch Time 4:45 a.m. EDT

Window 0 Hour 10 Minutes

**Orbit 51.6 Degrees @ 170 NM** 

KSC Landing July 23, 2001 @ TBD

#### **Ground Controllers**

Ascent/Entry Bill Foster

SSP Lead Johnnie Brothers

SSP Alternate Mike Marsh

ISS 3A Lead Richard Harris

#### Flight Directors

Lead P. Dye

#### Mission Objectives - ISS 7A.1

Donatello Multi-Purpose LogisticsModule (MPLM)

U.S. Stowage Racks and International Standard Payload Racks (ISPRS) Carried in MPLM.



### ISS 4R



#### Flight Profile

Russian Soyuz Rocket Launch Date July 24, 2001 Launch Time TBD . CT

Window 0 Hour 10 Minutes

**Orbit 51.6 Degrees** @ **170 NM** 

#### Mission Objectives - ISS 4R

**Docking Compartment 1 (DC-1) and Strela Boombe Installed.** 

Provides Additional Egress, Ingress Location for Russian-based Spacewalks and a Soyuz Docking Port.



# STS-108 Endeavor (OV-105) ISS UF-1



#### **CREW**

dr -- Dominic L. Gorie

Plt -- Mark E. Kelly

MS -- Linda M. Godwin

MS -- Daniel M. Tani

#### **Expedition-4 (up):**

Carl E. Walz

Yuri Onufrienko

Daniel W. Bursch

#### Flight Profile

Launch Date November 29, 2001

**Launch Time TBD** 

Window 0 Hour 10 Minutes

**Orbit 51.6 Degrees** @ **170 NM** 

**KSC Landing December 9@ TBD** 

#### **Ground Controllers**

Ascent/Entry Bill Foster
SSP Lead Mike Marsh
SSP Alternate Ray Grossman
ISS UF-1 Lead Brent Romero

#### Flight Directors

Lead TBD

#### Mission Objectives - ISS 7A

Provides for research work by delivering experiment racks for the U.S. Laboratory and two storage racks.



### **STS-109 Columbia** (*OV-102*)



#### **CREW**

Cdr -- Scott Altman

Plt -- Duane Carey

PC -- John Grunsfeld

MS -- Nancy Currie

MS -- James Newman

MS -- Richard Linnehan

MS -- Michael Massimino

#### Flight Profile

Launch Date Jan. 17, 2002

**Launch Time: TBD** 

Window Less Than 5 minutes Orbit 28.5 deg. 308 nm

KSC Landing Jan. 28, 2002 @ TBD

#### **Ground Controllers**

Ascent/Entry Joe Morris
SSP Lead Frank Stolarski
SSP Alternate Mike Marsh

#### Flight Directors

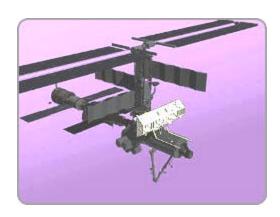
Lead B. Austin

#### Mission Objectives:

Third Hubble Space Telescope Servicing Mission



### STS-110 Atlantis (OV-104) ISS 8A



#### **CREW**

Cdr -- TBD Plt -- TBD MS -- TBD

#### Flight Profile

Launch Date: February 28, 2002

**Launch Time: TBD** 

Window 0 Hour 10 Minutes

Orbit 51.6 Degrees @ 170 NM KSC Landing March 9, 2002 @ TBD

#### **Ground Controllers**

Ascent/Entry Bill Foster
SSP Lead Ray Grossman
SSP Alternate Mike Marsh
ISS 8A Lead Gail Poole

### Flight Directors Lead TBD

Mission Objectives - ISS 8A Assembly

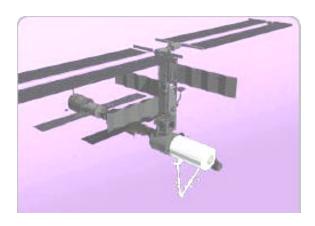
Integrated Truss Structure S0 is center segment of the 91-meter (300-foot) station truss, attached to the U.S. Lab.

Built in California and provided by Boeing, the Mobile Transporter creates a movable base for the station's Canadian mechanical arm, allowing it to travel along the station truss after delivery of the Mobile Base System, or MBS.

First Flight of the Orbiter Solid State Recorder



# STS-111 Endeavour (OV-105) ISS UF2



#### **CREW**

Cdr -- TBD

Plt -- TBD

MS -- TBD

MS -- TBD

MS -- TBD

M S- MS--Philippe Perrin (France/CNES)

#### Flight Profile

Launch Date: April 18, 2002,

**Launch Time: TBD** 

Window 0 Hour 10 Minutes

Orbit 51.6 Degrees @ 170 NM KSC Landing April 28, 2002 TBD

#### **Ground Controllers**

Ascent/Entry Ray Grossman
SSP Lead Johnnie Brothers
SSP Alternate Mike Marsh

ISS UF2 Lead Rick Hashop

#### Flight Directors

Lead P. Engelauf

#### Mission Objectives - ISS UF2

The Multipurpose Logistics Module, or MPLM, carries experiment racks and three stowage and resupply racks to the station.

The Mobile Base System is installed on the Mobile Transporter to complete the Canadian Mobile Servicing System, or MSS. The mechanical arm will now have the capability to "inchworm" from the U.S. Lab fixture to the MSS and travel along the Truss to work sites.



### **STS-107** Columbia (*OV-102*)



#### **CREW**

Cdr -- Rick Husband

Plt -- William "Willie" McCool

MS -- Michael Anderson

MS -- Kalpana Chawla

MS -- David Brown

MS -- Laurel Clark

PS -- Ilan Ramon (Israel)

#### Flight Profile

Launch Date May 23, 2002

**Launch Time TBD** 

Window TBD

Orbit 39 Degrees @ 150 NM KSC Landing June 9, 2002 @ TBD

#### **Ground Controllers**

Ascent/Entry Bill Foster SSP Lead Frank Stolarski SSP Alternate Mike Marsh

#### Flight Directors

Lead K. Beck

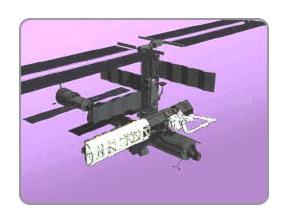
Mission Objectives - Research Mission

**SPACEHAB-DM** 

**FREESTAR** 



### STS-112 Atlantis (OV-104) ISS 9A



#### **CREW**

Cdr -- TBD Plt -- TBD MS -- TBD

#### Flight Profile

Launch Date: July 11, 2002

**Launch Time: TBD** 

Window 0 Hour 10 Minutes

Orbit 51.6 Degrees @ 170 NM KSC Landing July 22, 2002 @ TBD

#### **Ground Controllers**

Ascent/Entry Bill Foster
SSP Lead Ray Grossman
SSP Alternate Mike Marsh
ISS 9A Lead Robert Reynolds

### Flight Directors Lead TBD

#### Mission Objectives - ISS 8A Assembly

Delivers the first starboard truss segment, the S1 Truss, to be attached to the Central truss segment, the S0 Truss.

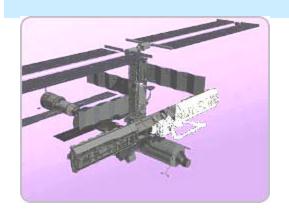
Backup S-band communications capability is provided.

CETA cart can be used by space walkers to move along truss with equipment.

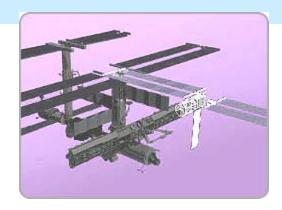


### ISS ASSEMBLY

ISS 11A: October 2002 Launch First left-side truss segment (ITS P1); Crew and Equipment Translation Aid (CETA) Cart B



<u>ISS 12A:</u> December 2002 Launch Second left-side truss segment (ITS P3/P4); Solar array and batteries.





# January 2003 ISS 13A

